

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: io LED

Report Number: P273408

Luminaire Tested: **0.05-03W-840-5-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273408
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-03W-840-5-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 5 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 724.3 lumens
Efficiency: N/A
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 0.17 / 1.31 / 0.22
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')
CIE Type: Direct

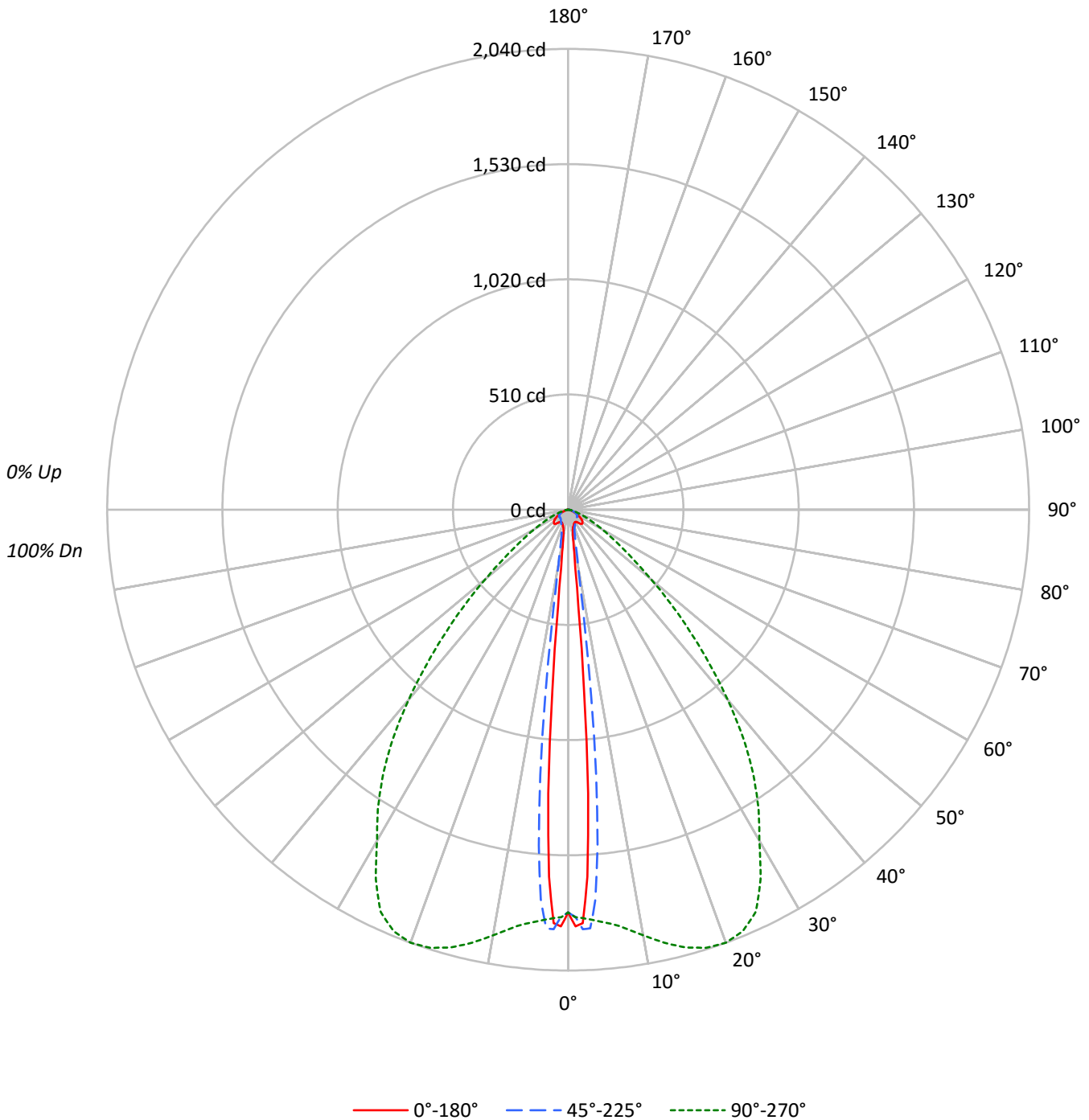
Input Watts (W): 16
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	93	94	92	91	89
2	104	97	92	87	101	95	91	86	92	88	84	89	85	82	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	74	79	75	72	70
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	63	60	58
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49
8	72	60	53	49	70	60	53	48	59	53	48	57	52	48	56	51	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	65	54	47	43	64	53	47	43	52	47	43	52	46	42	51	46	42	41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31585	31585	31585
5°	14295	26525	32612
10°	2238	4430	34405
15°	1504	2034	36783
20°	1333	1561	38455
25°	1267	1392	38397
30°	1285	1305	34595
35°	1438	1230	30835
40°	1838	1202	25372
45°	2207	1250	19082
50°	2265	1383	13170
55°	2171	1541	8790
60°	1835	1573	6154
65°	1425	1555	4187
70°	1108	1445	2828
75°	951	1253	1841
80°	939	1122	1163
85°	1159	1240	752



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.7	14.7
10°-20°	128.5	17.7
20°-30°	122.1	16.9
30°-40°	109.7	15.1
40°-50°	99.6	13.8
50°-60°	79.3	10.9
60°-70°	47.8	6.6
70°-80°	21.3	2.9
80°-90°	6.8	0.9
90°-100°	1.8	0.3
100°-110°	0.5	0.1
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	357.4	49.3
0°-40°	467.0	64.5
0°-60°	645.9	89.2
0°-90°	721.9	99.7
90°-120°	2.4	0.3
90°-150°	2.4	0.3
90°-180°	2.0	0.3
0°-180°	724.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1783	1783	1783	1783	1783	
5°	804	1010	1492	1864	1834	53
15°	82	86	111	450	2006	24
25°	65	65	71	137	1964	30
35°	66	61	57	107	1426	43
45°	88	77	50	101	762	66
55°	70	68	50	83	285	62
65°	34	37	37	49	100	35
75°	14	15	18	23	27	15
85°	6	6	6	6	4	5
90°	4	4	4	2	0	2
95°	2	3	2	1	0	2
105°	1	1	0	0	0	1
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0
1°	1844.8	1814.2	1812.4	1813.0	1818.5	1821.8	1827.7	1837.1	1814.6	1802.4	1800.4
2°	1831.3	1839.1	1841.7	1846.4	1859.9	1862.7	1867.8	1871.1	1868.0	1858.3	1851.5
3°	1626.9	1660.1	1676.4	1690.5	1727.6	1745.3	1769.2	1792.8	1832.6	1855.4	1864.6
4°	1259.5	1301.5	1320.9	1344.9	1407.5	1445.2	1503.7	1566.1	1655.4	1730.2	1779.6
5°	803.9	845.0	867.5	902.7	978.6	1041.2	1130.5	1226.5	1366.5	1491.7	1595.5
6°	433.2	464.2	480.9	507.0	565.9	624.9	723.5	840.5	1003.0	1180.8	1346.1
7°	260.3	273.4	281.9	295.2	325.6	360.6	422.6	496.0	649.7	836.1	1044.0
8°	189.2	192.9	197.8	204.7	218.3	235.9	268.9	309.7	400.0	536.8	732.7
9°	148.6	151.5	154.7	159.6	168.4	179.2	194.9	220.2	266.9	347.2	485.4
10°	124.4	126.2	128.6	132.1	138.2	146.0	157.4	174.3	201.6	246.3	320.1
12.5°	93.4	93.6	94.2	96.0	99.1	103.0	110.1	117.6	130.9	149.6	176.8
15°	82.0	82.4	82.6	83.4	84.8	86.4	89.3	93.2	99.5	110.9	125.6
17.5°	76.2	76.5	76.5	77.3	78.3	79.3	80.3	82.8	86.0	91.9	100.7
20°	70.7	70.5	70.7	70.9	72.4	73.4	74.8	76.9	79.1	82.8	87.9
22.5°	67.5	67.3	67.3	67.3	67.7	68.1	69.1	70.7	73.6	77.1	81.3
25°	64.8	64.6	64.4	64.4	64.8	65.6	66.1	66.5	68.1	71.2	75.8
27.5°	62.6	62.8	62.4	62.0	62.2	62.6	63.2	64.4	65.0	66.5	70.3
30°	62.8	62.6	62.0	61.4	60.5	60.1	60.3	60.8	62.2	63.8	65.8
32.5°	63.6	63.2	62.4	61.6	61.0	59.9	58.5	58.1	58.5	60.5	62.8
35°	66.5	66.1	64.6	63.0	61.6	59.9	58.3	56.9	55.9	56.9	59.5
37.5°	72.6	71.8	69.9	67.3	64.2	61.4	58.5	55.9	54.4	53.8	55.5
40°	79.5	78.9	76.7	73.6	69.7	65.0	59.9	56.1	53.2	52.0	52.6
42.5°	85.4	85.0	83.0	79.7	75.4	70.3	63.8	57.9	53.4	50.6	50.4
45°	88.1	87.3	85.8	83.4	79.7	74.6	68.1	60.8	54.0	49.9	48.3
47.5°	86.0	85.6	84.6	83.0	80.3	76.7	70.7	63.6	55.9	49.9	46.7
50°	82.2	82.0	81.1	79.5	77.7	75.0	70.9	65.0	57.7	50.2	45.7
52.5°	77.1	76.9	76.7	75.2	73.6	71.6	68.3	63.8	57.7	50.8	44.9
55°	70.3	70.3	70.1	70.1	68.9	67.1	64.2	60.5	55.9	49.9	44.0
57.5°	61.8	62.2	62.0	62.4	62.8	61.8	59.5	56.7	52.8	47.5	42.4
60°	51.8	52.2	52.4	53.0	54.2	55.0	54.0	52.0	48.7	44.4	39.8
62.5°	42.6	43.0	43.2	44.0	44.9	46.5	47.3	46.7	44.4	41.0	36.7
65°	34.0	34.7	34.9	35.5	36.7	38.1	39.6	40.6	39.3	37.1	33.6
67.5°	27.1	27.1	27.7	28.5	29.6	31.0	32.4	33.8	34.0	32.8	30.2
70°	21.4	21.8	22.0	22.6	23.6	24.7	25.7	27.3	28.3	27.9	26.7
72.5°	17.1	17.5	17.7	18.1	18.8	19.8	20.6	21.6	22.8	23.2	22.6
75°	13.9	14.1	14.1	14.5	15.1	15.7	16.3	16.9	17.7	18.3	18.6
77.5°	11.4	11.4	11.4	11.4	12.0	12.2	12.8	13.3	13.7	14.5	15.1
80°	9.2	9.2	9.2	9.0	9.4	9.6	9.8	10.0	10.4	11.0	11.8
82.5°	7.1	7.1	7.1	7.1	7.3	7.5	7.5	7.5	8.0	8.2	9.0
85°	5.7	5.7	5.7	5.7	5.7	5.9	5.9	5.9	5.9	6.1	6.5
87.5°	4.5	4.5	4.5	4.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7
90°	3.7	3.5	3.5	3.5	3.7	3.7	3.7	3.5	3.5	3.5	3.5
92.5°	2.9	2.9	2.9	2.9	2.9	3.3	2.9	2.9	2.9	2.9	2.4
95°	2.4	2.4	2.4	2.4	2.4	2.7	2.4	2.4	2.0	2.0	2.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	1.6	1.6	1.2
100°	1.6	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.2	1.2	0.8
102.5°	1.2	1.2	1.2	1.2	1.2	1.6	1.2	1.2	0.8	0.8	0.4
105°	0.8	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.4	0.4	0.0
107.5°	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.0	0.0
110°	0.4	0.4	0.4	0.4	0.6	0.8	0.6	0.4	0.2	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0	1783.0
1°	1799.5	1791.2	1787.5	1789.1	1788.9	1792.6	1798.9	1804.2
2°	1842.8	1826.9	1816.9	1809.5	1802.0	1799.5	1804.8	1808.7
3°	1866.8	1861.9	1853.4	1839.5	1824.0	1813.4	1814.0	1816.1
4°	1822.0	1857.2	1873.1	1866.6	1849.1	1831.1	1825.6	1824.2
5°	1696.0	1790.6	1849.9	1877.2	1871.1	1851.7	1837.5	1834.0
6°	1497.2	1661.7	1777.5	1856.2	1883.1	1871.3	1850.7	1844.2
7°	1248.5	1477.6	1660.9	1803.6	1880.1	1888.4	1866.2	1857.2
8°	971.4	1259.3	1503.1	1720.2	1857.9	1903.3	1885.2	1875.2
9°	695.6	1015.9	1317.4	1605.1	1815.0	1912.3	1906.6	1893.9
10°	477.5	768.8	1109.9	1465.4	1750.6	1909.6	1928.2	1912.7
12.5°	224.3	332.7	586.5	1038.7	1509.0	1844.4	1969.4	1963.3
15°	150.5	195.1	297.0	602.4	1176.1	1698.2	1985.1	2005.7
17.5°	117.0	142.9	195.1	336.8	812.8	1493.9	1954.9	2033.4
20°	97.4	116.8	151.5	230.4	508.7	1242.6	1878.0	2039.9
22.5°	87.5	100.5	127.2	185.9	348.4	986.9	1762.2	2019.1
25°	81.5	90.7	112.3	161.3	279.1	747.6	1616.5	1964.5
27.5°	76.0	84.6	102.7	145.8	247.3	560.4	1420.1	1843.8
30°	70.9	78.9	95.4	136.8	230.6	446.9	1207.3	1691.3
32.5°	66.3	74.0	90.3	131.5	222.2	391.6	1028.1	1567.3
35°	62.8	69.7	86.0	128.8	217.5	355.5	856.9	1425.9
37.5°	59.9	66.3	82.6	126.8	213.0	325.8	726.2	1272.1
40°	56.1	63.4	80.3	125.8	206.9	295.6	615.5	1097.2
42.5°	52.8	59.9	78.3	125.6	198.4	267.1	540.9	925.2
45°	49.9	56.7	76.9	124.8	186.5	240.4	477.1	761.7
47.5°	47.3	53.8	74.8	121.5	171.2	214.7	423.2	612.4
50°	44.9	51.2	72.6	116.0	154.5	190.2	372.9	477.9
52.5°	43.0	48.3	69.7	108.3	136.2	168.2	322.7	367.8
55°	41.4	46.3	66.7	98.5	119.1	148.0	281.3	284.6
57.5°	39.3	43.8	63.0	87.3	103.6	128.4	239.1	221.8
60°	37.1	41.2	58.1	75.2	88.7	109.7	195.9	173.7
62.5°	34.2	38.3	52.4	63.2	74.4	91.3	151.5	132.1
65°	31.2	34.7	45.7	52.8	61.6	77.7	116.0	99.9
67.5°	28.1	31.2	39.1	44.6	51.0	64.8	86.2	75.0
70°	25.1	26.9	32.8	37.5	42.0	52.0	61.8	54.6
72.5°	21.8	22.8	26.7	31.0	33.4	40.2	43.6	38.7
75°	18.1	18.8	21.6	25.1	26.1	30.4	30.0	26.9
77.5°	15.1	15.1	16.7	19.4	20.2	21.6	19.8	17.9
80°	12.0	11.8	12.2	13.9	14.7	14.1	12.6	11.4
82.5°	9.4	9.4	9.2	9.6	9.6	8.8	7.5	6.9
85°	6.9	6.9	6.7	6.1	5.7	4.7	3.7	3.7
87.5°	5.1	5.1	4.5	3.7	3.1	2.0	1.2	1.2
90°	3.5	3.3	2.9	2.0	1.2	0.6	0.0	0.0
92.5°	2.4	2.0	1.6	1.2	0.4	0.0	0.0	0.0
95°	1.6	1.2	0.8	0.4	0.0	0.0	0.0	0.0



TEST NUMBER: P273408

CATALOG NUMBER: 0.05-03W-840-5-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	1.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0
100°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)